WHAT IS CLAIMED IS:

1   1.   A method for executing a workflow, comprising:

2   providing a workflow class implementing methods and objects to provide

3   information on and control of workflows;

4   providing a work list class implementing methods and objects to provide

5   information on and manipulate work items assigned to the workflows; and

6   providing a work item class implementing methods and objects to provide

7   information on and manipulate work items when executing one workflow.

1   2.   The method of claim 1, further comprising:

2   calling methods in the workflow class to begin and terminate an instance of one

3   workflow comprising nodes;

4   calling methods in the work list class to obtain information on the work items and

5   nodes in one workflow; and

6   calling the methods in the work item class to enable a user to perform actions

7   associated with one work item in one workflow, wherein at least one work item is

8   associated with each node in the workflow.

1   3.   The method of claim 1, further comprising:

2   calling one method in the work list class to determine nodes and associated work

3   items in the workflow to process;

4   calling one method in the work item class to lock the work item when providing a

5   user access to workflow actions and documents associated with the work item; and

6   calling one method in the work item class to unlock the work item after the user

7   has completed all actions associated with the work item.

1   4.   The method of claim 1, further comprising:

2   providing a workflow notification class including methods and objects to provide

3   information on notifications associated with the workflows, wherein one notification is

4   generated if an action associated with one work item is not performed in a specified time

5   period; and

6   calling methods in the workflow notification class to obtain information on one

7   notification and control a state of the notification.

1   5.   The method of claim 1, further comprising:

2   providing a workflow service class including methods and objects to provide

3   information on workflows associated with one workflow service; and

4   calling one method in the workflow service class to obtain a list of all workflows

5   associated with one workflow service.

1   6.   The method of claim 1, further comprising:

2   providing a container class including methods and objects to provide information

3   and control containers provided for workflows, wherein the container comprises an object

4   that is used to transfer information among the nodes by enabling users to read and write

5   data to the container; and

6   calling the methods in the container class to read and write data to the container

7   for at least one user of one work item.

1   7.   The method of claim 6, further comprising:

2   calling methods in the work item class to make one container associated with one

3   work item available to one user of one work item; and

4   calling one method in the work item class to enable one user of one work item at a

5   next node in the workflow access to the container.

1   8.   The method of claim 1, further comprising:

2   instantiating a workflow object maintaining information on one workflow,

3   wherein the methods of the workflow class obtain information and control the workflow

4   through the variables in the workflow object representing the workflow;

5   instantiating a work list object maintaining information on work items and nodes

6   in one workflow, wherein the methods of the work list class obtain information on work

7   items and nodes in one workflow; and

8   instantiating one work item object for each work item in one workflow, wherein

9   the methods of the work item class obtain information on work items from the work item

10   objects, wherein one work list object identifies one or more work items represented by

11   work item objects and wherein one workflow object is associated with one or more work

12   items.

1   9.   The method of claim 8, further comprising:

2   providing a workflow service class including methods and objects to provide

3   information one workflows associated with one workflow service; and

4   instantiating a workflow service object maintaining information on workflows and

5   work lists for the workflows associated with one workflow service, wherein the methods

6   of the workflow service obtain information on workflows and work lists from the

7   workflow service object.

1   10.   The method of claim 9, wherein the workflow service object includes

2   information on associated workflow templates, wherein each instance of an executing

3   workflow is instantiated from one workflow template, further comprising:

4   providing a workflow template class including methods and objects to provide

5   information on one worfklow template associated with one workflow service; and

6 instantiating a workflow template object maintaining information on one

7 workflow template, wherein one or more workflow objects are associated with one

8 workflow template object.

1 11. The method of claim 10, wherein the workflow service object includes

2 information on one or more associated workflow templates, and wherein one method of

3 the workflow service class is called to obtain information on the one or more workflow

4 templates associated with the workflow service.

1 12. The method of claim 8, further comprising:

2 providing a workflow notification class including methods and objects to provide

3 information on notifications associated with one workflow that generate a notification if

4 an action associated with one work item is not performed in a specified time period; and

5 instantiating one workflow notification object maintaining information on one

6 workflow notification, wherein one or more workflow notifications are associated with

7 one workflow and wherein one work list includes one or more workflow notifications.

1 13. The method of claim 8, further comprising:

2 providing a container class including methods and objects to provide information

3 on and control of containers used in workflows to transport data among the nodes,

4 wherein the container object comprises an object that is used to transfer information

5 among the nodes by enabling users to read and write data to the container; and

6 instantiating one container object maintaining information on one container used

7 in a workflow, wherein one container object is associated with one workflow object and

8 one work item.

1 14. The method of claim 1, wherein the classes comprise object oriented

2 classes.

1   15.   A system for executing a workflow, comprising:

2   means for providing a workflow class implementing methods and objects to

3   provide information on and control of workflows;

4   means for providing a work list class implementing methods and objects to

5   provide information on and manipulate work items assigned to the workflows; and

6   means for providing a work item class implementing methods and objects to

7   provide information on and manipulate work items when executing one workflow.

1   16.   The system of claim 1, further comprising:

2   means for calling methods in the workflow class to begin and terminate an

3   instance of one workflow comprising nodes;

4   means for calling methods in the work list class to obtain information on the work

5   items and nodes in one workflow; and

6   means for calling the methods in the work item class to enable a user to perform

7   actions associated with one work item in one workflow, wherein at least one work item is

8   associated with each node in the workflow.

1   17.   The system of claim 1, further comprising:

2   means for calling one method in the work list class to determine nodes and

3   associated work items in the workflow to process;

4   means for calling one method in the work item class to lock the work item when

5   providing a user access to workflow actions and documents associated with the work

6   item; and

7   means for calling one method in the work item class to unlock the work item after

8   the user has completed all actions associated with the work item.

1   18.   The system of claim 1, further comprising:

2   means for providing a workflow notification class including methods and objects

3   to provide information on notifications associated with the workflows, wherein one

4   notification is generated if an action associated with one work item is not performed in a

5   specified time period; and

6   means for calling methods in the workflow notification class to obtain information

7   on one notification and control a state of the notification.

1   19.   The system of claim 1, further comprising:

2   means for providing a workflow service class including methods and objects to

3   provide information on workflows associated with one workflow service; and

4   means for calling one method in the workflow service class to obtain a list of all

5   workflows associated with one workflow service.

1   20.   The system of claim 1, further comprising:

2   means for providing a container class including methods and objects to provide

3   information and control containers provided for workflows, wherein the container

4   comprises an object that is used to transfer information among the nodes by enabling

5   users to read and write data to the container; and

6   means for calling the methods in the container class to read and write data to the

7   container for at least one user of one work item.

1   21.   The system of claim 20, further comprising:

2   means for calling methods in the work item class to make one container

3   associated with one work item available to one user of one work item; and

4   means for calling one method in the work item class to enable one user of one

5   work item at a next node in the workflow access to the container.

1   22.   The system of claim 1, further comprising:

2   means for instantiating a workflow object maintaining information on one

3   workflow, wherein the methods of the workflow class obtain information and control the

4   workflow through the variables in the workflow object representing the workflow;

5   means for instantiating a work list object maintaining information on work items

6   and nodes in one workflow, wherein the methods of the work list class obtain information

7   on work items and nodes in one workflow; and

8   means for instantiating one work item object for each work item in one workflow,

9   wherein the methods of the work item class obtain information on work items from the

10   work item objects, wherein one work list object identifies one or more work items

11   represented by work item objects and wherein one workflow object is associated with one

12   or more work items.

1   23.   The system of claim 22, further comprising:

2   means for providing a workflow service class including methods and objects to

3   provide information one workflows associated with one workflow service; and

4   means for instantiating a workflow service object maintaining information on

5   workflows and work lists for the workflows associated with one workflow service,

6   wherein the methods of the workflow service obtain information on workflows and work

7   lists from the workflow service object.

1   24.   The system of claim 23, wherein the workflow service object includes

2   information on associated workflow templates, wherein each instance of an executing

3   workflow is instantiated from one workflow template, further comprising:

4   means for providing a workflow template class including methods and objects to

5   provide information on one worfklow template associated with one workflow service;

6   means for instantiating a workflow template object maintaining information on

7 one workflow template, wherein one or more workflow objects are associated with one

8 workflow template object.

1   25.   The system of claim 24, wherein the workflow service object includes

2 information on one or more associated workflow templates, and wherein one method of

3 the workflow service class is called to obtain information on the one or more workflow

4 templates associated with the workflow service.

1   26.   The system of claim 22, further comprising:

2   means for providing a workflow notification class including methods and objects

3 to provide information on notifications associated with one workflow that generate a

4 notification if an action associated with one work item is not performed in a specified

5 time period; and

6   means for instantiating one workflow notification object maintaining information

7 on one workflow notification, wherein one or more workflow notifications are associated

8 with one workflow and wherein one work list includes one or more workflow

9 notifications.

1   27.   The system of claim 22, further comprising:

2   means for providing a container class including methods and objects to provide

3 information on and control of containers used in workflows to transport data among the

4 nodes, wherein the container object comprises an object that is used to transfer

5 information among the nodes by enabling users to read and write data to the container;

6 and

7   means for instantiating one container object maintaining information on one

8 container used in a workflow, wherein one container object is associated with one

9 workflow object and one work item.

1   28.   The system of claim 1, wherein the classes comprise object oriented

2   classes.

1   29.   An article of manufacture for executing a workflow by:

2   providing a workflow class implementing methods and objects to provide

3   information on and control of workflows;

4   providing a work list class implementing methods and objects to provide

5   information on and manipulate work items assigned to the workflows; and

6   providing a work item class implementing methods and objects to provide

7   information on and manipulate work items when executing one workflow.

1   30.   The article of manufacture of claim 29, further comprising:

2   calling methods in the workflow class to begin and terminate an instance of one

3   workflow comprising nodes;

4   calling methods in the work list class to obtain information on the work items and

5   nodes in one workflow; and

6   calling the methods in the work item class to enable a user to perform actions

7   associated with one work item in one workflow, wherein at least one work item is

8   associated with each node in the workflow.

1   31.   The article of manufacture of claim 29, further comprising:

2   calling one method in the work list class to determine nodes and associated work

3   items in the workflow to process;

4   calling one method in the work item class to lock the work item when providing a

5   user access to workflow actions and documents associated with the work item; and

6   calling one method in the work item class to unlock the work item after the user

7   has completed all actions associated with the work item.

1   32.   The article of manufacture of claim 29, further comprising:

2   providing a workflow notification class including methods and objects to provide

3 information on notifications associated with the workflows, wherein one notification is

4 generated if an action associated with one work item is not performed in a specified time

5 period; and

6   calling methods in the workflow notification class to obtain information on one

7 notification and control a state of the notification.

1   33.   The article of manufacture of claim 29, further comprising:

2   providing a workflow service class including methods and objects to provide

3 information on workflows associated with one workflow service; and

4   calling one method in the workflow service class to obtain a list of all workflows

5 associated with one workflow service.

1   34.   The article of manufacture of claim 29, further comprising:

2   providing a container class including methods and objects to provide information

3 and control containers provided for workflows, wherein the container comprises an object

4 that is used to transfer information among the nodes by enabling users to read and write

5 data to the container; and

6   calling the methods in the container class to read and write data to the container

7 for one at least one user of one work item.

1   35.   The article of manufacture of claim 23, further comprising:

2   calling methods in the work item class to make one container associated with one

3 work item available to one user of one work item; and

4   calling one method in the work item class to enable one user of one work item at a

5 next node in the workflow access to the container.

1   36.   The article of manufacture of claim 29, further comprising:

2   instantiating a workflow object maintaining information on one workflow,

3   wherein the methods of the workflow class obtain information and control the workflow

4   through the variables in the workflow object representing the workflow;

5   instantiating a work list object maintaining information on work items and nodes

6   in one workflow, wherein the methods of the work list class obtain information on work

7   items and nodes in one workflow; and

8   . instantiating one work item object for each work item in one workflow, wherein

9   the methods of the work item class obtain information on work items from the work item

10   objects, wherein one work list object identifies one or more work items represented by

11   work item objects and wherein one workflow object is associated with one or more work

12   items.

1   37.   The article of manufacture of claim 36, further comprising:

2   providing a workflow service class including methods and objects to provide

3   information one workflows associated with one workflow service; and

4   instantiating a workflow service object maintaining information on workflows and

5   work lists for the workflows associated with one workflow service, wherein the methods

6   of the workflow service obtain information on workflows and work lists from the

7   workflow service object.

1   38.   The article of manufacture of claim 37, wherein the workflow service

2   object includes information on associated workflow templates, wherein each instance of

3   an executing workflow is instantiated from one workflow template, further comprising:

4   providing a workflow template class including methods and objects to provide

5   information on one worfklow template associated with one workflow service; and

6   instantiating a workflow template object maintaining information on one

7   workflow template, wherein one or more workflow objects are associated with one

8   workflow template object.

1   39.   The article of manufacture of claim 38, wherein the workflow service

2   object includes information on one or more associated workflow templates, and wherein

3   one method of the workflow service class is called to obtain information on the one or

4   more workflow templates associated with the workflow service.

1   40.   The article of manufacture of claim 36, further comprising:

2   providing a workflow notification class including methods and objects to provide

3   information on notifications associated with one workflow that generate a notification if

4   an action associated with one work item is not performed in a specified time period; and

5   instantiating one workflow notification object maintaining information on one

6   workflow notification, wherein one or more workflow notifications are associated with

7   one workflow and wherein one work list includes one or more workflow notifications.

1   41.   The article of manufacture of claim 36, further comprising:

2   providing a container class including methods and objects to provide information

3   on and control of containers used in workflows to transport data among the nodes,

4   wherein the container object comprises an object that is used to transfer information

5   among the nodes by enabling users to read and write data to the container; and

6   instantiating one container object maintaining information on one container used

7   in a workflow, wherein one container object is associated with one workflow object and

8   one work item.

1   42.   The article of manufacture of claim 29, wherein the classes comprise

2   object oriented classes.